

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A system for detecting and transferring data pertaining to an unknown analyte, the system comprising:

a device manager;

a data capture module coupled to the device manager for capturing data pertaining to the unknown analyte at a first geographic location;

a first data formatting module coupled to the device manager for formatting data captured by the data capture module into a transmissible format; and

a first input/output (I/O) module coupled to the device manager for transmitting data formatted by the first data formatting module to a processor at a second geographic location via a computer network;

a processor manager;

a data acquisition module coupled to the processor manager for receiving formatted data from the device manager;

a second data formatting module coupled to the processor manager for decoding data received by the data acquisition module;

a database interface module coupled to the processor manager for retrieving data of known analytes from an electronic library;

an analysis module coupled to the processor manager for performing analysis on data decoded by the second data formatting module and generating an analysis result; and

a second I/O module coupled to the processor manager for managing communications between the processor manager and other entities,

wherein said device manager resides in a first device; and

wherein said processor manager and said electronic library reside in a second device, and

wherein said second device corresponds to a server connectable to said first device via the computer network.

2. (Canceled)

3. (Canceled).

4. (Currently Amended) A system according to claim [[2]] 1, wherein the database interface module can also update the electronic library with data received by the data acquisition module.

5. (Currently Amended) A system according to claim [[2]] 1, wherein the first I/O module is coupled to the computer network.

6. (Original) A system according to claim 1, wherein the computer network is selected from a member from a group consisting of a worldwide computer network, an internet, the Internet, a wide area network, a local area network, and an intranet.

7. (Original) A system according to claim 1, wherein the data capture module performs a step including:

capturing the data pertaining to the unknown analyte in an analog format.

8. (Original) A system according to claim 7, wherein the first data formatting module performs steps including:

converting data captured by the data capture module into a digital format;
encoding the captured data in digital format into an analysis format;
encoding the captured data in analysis format into TCP/IP format; and
encoding the captured data in TCP/IP format into a network-specific data format.

9. (Currently Amended) A system according to claim [[2]] 1, wherein the second I/O module performs a step including:

displaying the analysis result on a web page.

10. (Original) A system according to claim 1, wherein the transmission of the data formatted by the first data formatting module is conducted via wireless communications.

11. (Original) A system according to claim 10, wherein said wireless communications are implemented using communications technologies selected from a member of a group consisting of infrared technology, satellite technology, microwave technology and radio wave technology.

12. (Original) A system according to claim 1, wherein the transmission of the data formatted by the first data formatting module is conducted via wired communications.

13. (Original) A system according to claim 1, wherein the data captured by the data capture module is olfaction data.

14. (Original) A system according to claim 1, wherein the system is used in an application selected from a group consisting of hospital/medical applications, fire safety monitoring, environmental toxicology, remediation, biomedicine, material quality control, food monitoring, agricultural monitoring, heavy industrial manufacturing, ambient air monitoring, worker protection, emissions control, product quality testing, oil/gas petrochemical applications, combustible gas detection, H₂S monitoring, hazardous leak detection, emergency response and law enforcement applications, explosives detection, utility and power applications, food/beverage/agriculture applications, freshness detection, fruit ripening control, fermentation process monitoring and control, flavor composition and identification, product quality and identification, refrigerant and fumigant detection, cosmetic/perfume applications, fragrance formulation, chemical/plastics/pharmaceuticals applications, fugitive emission identification, solvent recovery effectiveness, anesthesia and sterilization gas detection, infectious disease detection, breath analysis and body fluids analysis.

15. (Currently Amended) A system for detecting and transferring data pertaining to an unknown analyte, comprising:

a first device configured to capture and transmit said data pertaining to said unknown analyte; and

a second device configured to receive and process said data pertaining to said unknown analyte from said first device;

wherein said first device transmits said data pertaining to said unknown analyte to said second device via a computer network, and

wherein the second device corresponds to a server computer.

16. (Original) A system according to claim 15, wherein said first device further includes:

an analyte detector configured to capture said data pertaining to said unknown analyte;

a codec configured to encode said data pertaining to said unknown analyte so as to allow transmission thereof to said second device; and

a communication interface configured to communicate with said computer network so as to allow said encoded data to be transmitted to said second device.

17. (Original) A system according to claim 15, wherein said second device further includes:

an analyte analyzer configured to analyze said data pertaining to said unknown analyte;

a codec configured to decode data received from said first device so as to allow said analyte analyzer to analyze said data pertaining to said unknown analyte; and

a communication interface configured to communicate with said computer network so as to allow data to be received from said first device.

18. (New) A system according to claim 15, wherein said second device further includes an electronic library that stores data corresponding to known analytes, to be compared to said unknown analyte at said second device, in order to identify said unknown analyte.

19. (New) A system for detecting and transferring data pertaining to an analyte, said system comprising:

a first device including:

an analyte capturing unit configured to capture signature analyte data pertaining to said analyte using a sensor array of said first device;

a transmitting and receiving unit configured to transmit a request to said second device, over a computer network, for reference analyte data, wherein the reference analyte data is to be compared with the captured signature analyte data at said first device, said transmitting and receiving unit configured to receive the reference analyte data sent by said second device to said first device over the computer network; and

an analysis unit configured to analyze the captured signature analyte data, based on the reference analyte data obtained from said second device over said computer network

20. (New) A system according to claim 19, wherein said second device includes:

an interface unit configured to interface with an electronic library in order to obtain the reference analyte data from said electronic library.

21. (New) A system according to claim 20, wherein said electronic library is accessible by said second device over a second computer network separate from said computer network.

22. (New) A system according to claim 20, wherein said first device stores the reference analyte data obtained from said second device in a data storage of said first device, prior to said analyte capturing unit capturing the signature analyte data.